

Application No. 10/508,982
Attorney Docket No. 2002B045A

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1 - 15. (cancelled)

16. (currently amended) A process for producing a long chain alcohol mixture comprising contacting at least part of the olefinic hydrocarbon mixture produced by preparing an olefinic hydrocarbon mixture comprising at least 5% by weight of mono-olefin oligomers of the empirical formula:



where n is greater than or equal to 6, said mono-olefin oligomers comprising at least 20 percent by weight of olefins having at least 12 carbon atoms, said olefins having at least 12 carbon atoms having an average of from about 0.8 to about 2.0 C₁-C₃ alkyl branches per carbon chain, wherein at least 50% of the branches in the olefins having at least 12 carbon atoms comprising methyl and ethyl branches located at the odd-numbered positions in the carbon chain, said process for preparing an olefinic hydrocarbon mixture comprising contacting a feedstock comprising n-butene and propylene in a molar ratio of about 1:0.01 to about 1:0.49 under oligomerization conditions with surface deactivated ZSM-23, wherein said ZSM-23 has been surface deactivated with a sterically hindered nitrogenous base, the process of any preceding claim with carbon monoxide and hydrogen under hydroformylation conditions and in the presence of a hydroformylation catalyst.

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17. (currently amended) A process for producing an alkylaromatic compound comprising contacting an aromatic compound with at least part of the olefinic hydrocarbon mixture produced by ~~the process of claim 1~~ preparing an olefinic hydrocarbon mixture comprising at least 5% by weight of mono-olefin oligomers of the empirical formula:



where n is greater than or equal to 6, said mono-olefin oligomers comprising at least 20 percent by weight of olefins having at least 12 carbon atoms, said olefins having at least 12 carbon atoms having an average of from about 0.8 to about 2.0 C₁-C₃ alkyl branches per carbon chain, wherein at least 50% of the branches in the olefins having at least 12 carbon atoms comprising methyl and ethyl branches located at the odd-numbered positions in the carbon chain, said process for preparing an olefinic hydrocarbon mixture comprising contacting a feedstock comprising n-butene and propylene in a molar ratio of about 1:0.01 to about 1:0.49 under oligomerization conditions with surface deactivated ZSM-23, wherein said ZSM-23 has been surface deactivated with a sterically hindered nitrogenous base, wherein said contacting with said olefinic compound occurs under alkylation conditions and in the presence of an alkylation catalyst.

18. (original) A process for preparing an alkylaryl sulfonate by sulfonating the alkylaromatic compound produced by the process of Claim 17.

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SUPPORT FOR THE AMENDMENTS

Claims 16 and 17 are amended to include the limitations of Claim 1, also to include the limitations that at least 50% of the branches in the C12+ olefinic product comprise methyl and ethyl branches and are located at the odd-numbered positions in the carbon chain, as found at paragraphs [0017] and [0018] in the specification, and furthermore to include the limitation of Claim 3 with respect to surface deactivation of the catalyst.

It is believed that there is no possibility of new matter and entry and consideration is respectfully requested.